c.—THERAPEUTICS OF THE NERVOUS SYSTEM AND MIND.

THE WILL AS A THERAPEUTIC AGENT.—The following passages from a recent very interesting memoir read by M. Jolly before the Paris *Acad. de Medicine*, are taken from the *Bull. gen de Therapeutique:*

We may strive with more or less of success against the efforts of coughing, which is noteworthy, not only as an instance of the power of the will, but also as a remedy of value in very many cases.

Cough, in fact, may be only a vicious habit, without need of expectoration or specific lesion, becoming itself and by itself alone an incessant cause of its own repetition. Cough, says Montaigne, produces cough; a cougher causes me to cough; but the will alone, and especially the will aided by distracting sensations or muscular actions capable of diverting attention, is the most certain method of cure. We see infants with whooping-cough who, when pre-occupied with their games, pass hours without feeling the need of coughing, while they are every instant liable to convulsive cough when they are unoccupied, or awakened by the same necessity during sleep; and I have not been astonished to learn that English physicians have cured whooping-cough by distracting the attention, and often by placing the patients under the noise of machinery.

Asthma, properly speaking, that is the spasm of the muscular apparatus of Reissessein, may likewise receive the happy influence of the will wisely applied, either in overcoming by a forced inspiration the spasm of the bronchial tubes, that have been closed, or in diverting by preoccupation the morbid exercise of their innervation. To attain this double purpose Laennec recommended certain patients to read aloud so that the expiration might be prolonged and the inspiration rendered more complete. As a means of distraction he advises also the exercise of the senses, even in the night, when the attacks seem to occur most frequently at night, as we often see them. He relates the curious account of a patient who arrested his attacks at will by lighting a candle and occupying his attention with the objects constituting the furnishing of his chamber.

We can understand with more difficulty how the will can master the seizures of epilepsy, still this is not impossible; we have seen at the hospital St. Louis, 1827, a patient subject for many years to this disease, who could voluntarily suppress his attacks. It sufficed him, to the great astonishment of the students, to put into voluntary motion the muscles of mastication and deglutition by introducing solid aliments into his mouth, in order to avert the return of the attack.

But a fact well worthy of the attention of the physician is, that the will, whose power is, so to speak, incalculable to produce the movements of contraction, still remains ineffeacious as regards the opposed move-

ments of muscular relaxation. Every individual muscle which has contracted in apprehension of pain, remains so in spite of all efforts of the will. We readily swallow by accident the seed of a fruit or some other body of greater or lesser dimensions, yet we frequently are unable, even with the firmest resolve, to accomplish the deglutition of a very small dose or a simple granule of a medicine; and there is reason to think that the hydrophobia of certain nervous females has often no other cause than the contest between the fear and the intention of swallowing.

Another example: we solicit in vain from a patient whose abdomen we wish to explore, the relaxation of the muscles of that region; all the efforts of his will only increase the contraction we desire to overcome, while the slightest distraction of the attention suffices to cause them to cease.

It is the same with a patient in whom we desire to reduce a luxation; the more we strive to obtain a voluntary muscular relaxation the more we augment the state of contraction which hinders the reduction; while if we manage by any means, physical or moral, to distract the attention, all the muscles relax, and the operation is completed often, as it were, by magic.

We know, also, that sleep, which is the relaxation of the muscular powers, may be prevented by the influence of the will. To wish to obtain the benefits of sleep is a sure means of postponing it: it is voluntarily to give one's self up to sleeplessness.

Eserine in Tetanus.—Dr. Delamarre in a recent inaugural thesis (abstracted in *L'Union Medicale*,) reports two cases of traumatic tetanus treated by hypodermic injections of sulphate of eserine. Although the patients both died, a very notable amelioration of the symptoms followed each injection of the eserine, and it appears to be worthy of a more extended trial in this disease.

Bromide of Lithium.—After having shown that it is to S. Weir Mitchell that we owe in 1870 the first application of bromide of lithium in therapeutics, and noticing the usage made of it in 1872 by Roubaud in a case of gout, Dr. Levy, *interne* of the Hospital Rothschild, studies the physiological peculiarities of bromide of lithium, which has, as compared with the corresponding potassium salt, the following action:

1. Bromide of potassium has an action on the muscular system, but bromide of lithium has no influence upon it.

2. Bromide of lithium acts, in general, more energetically and more rapidly on the cord and sensory nerves than the bromide of potassium.

3. The loss of sensibility, commencing in the nerves, may propagate itself in a longer or shorter time to the cord or even the brain.

As regards its therapeutic action it is as follows:

The action of bromide of lithium in gout, though slight, appears nevertheless to exist.

The slight difference in the quantity of uric acid and urea in the urine, at the beginning and at the end of the experiments, do not permit us to say that it acts in diminishing the quantity of uric acid.

Bromide of lithium, very rich in bromine, possesses a very well marked sedative action on the cerebro-spinal axis. It modifies favorably various neuroses, especially epilepsy. It is even more active in this respect than bromide of potassium. It has moreover, the advantage over this salt, of not affecting the heart and, in a certain number of cases, this negative property is of high interest. We may therefore promise without fear, to bromide of lithium an honorable place in therapeutics.

Bromide of lithium may be given in the following doses:

In gout, the dose of 50 centigrammes (= 7½ grs.) at a time is sufficient.

In combating certain nervous conditions, hysteria, insomnia, etc., the dose may be only 20 centigrammes (= 3 grs.)

In epilepsy it is well to begin with 50 centigrammes, increasing gradually to 2½ or 3 grammes (= 30-45 grs.) There is no danger of making the dose too high.—*Thesis de Paris*, 493, 1874.—*Bull. Gen. de Therap.*

Phosphorus in Certain Nervous Affections.—Dr. E. Lemaire has collected in his very interesting memoir a great number of observations, and, supporting himself with the works of Behier, Lecorche, Dujardin-Beaumetz, Desnos, etc., he states the following conclusions, which afford a very good summary of his paper.

1. In paralysis following acute disease, or ataxo-adynamic fevers, phosphorus possesses no very special action. It is only a tonic of the same rank as other remedies to which it adds its action.

2. In paralyses due to an alteration of the blood (chloro-anæmia) or to a diminution of its quantity (hæmorrhages), phosphorus has only a very uncertain action, and is perhaps only a stimulant.

3. It does not appear to have any effect in paralyses *a frigore* and in hysterical paralyses, according to all the testimony we have been able to collect.

4. Phosphorus has no effect on the paralyses produced by cerebral softening or hæmorrhages of a certain extent.

5. In the paralyses following very limited extent which have not caused too great damage to the nerve substance, phosphorus appears to aid in hastening a cure, even when the paralysis has lasted considerable time, a year for example.

6. Phosphorus does not affect paralyses due to a cerebral tumor. Perhaps, nevertheless, in case of syphilitic tumors it may hurry up the cure after the specific treatment has had its effect.

7. It has no effect in old paraplegias due to softening or extended sclerosis.

8. Phosphorus seems to have a favorable effect on recent, incomplete paraplegias, not dependent upon any profound medullary lesion.

9. In progressive locomotor ataxia, the commencement of which is not too remote and the symptoms not too generalized, phosphorus seems to

have a favorable influence. It does not cure but it benefits the case. The progress of the disease, in some cases, seems checked; it remains stationary rather than advances.

10. It has a very uncertain action on the fulgurant pains, and a very variable one on the symptoms of impotence. It appears to give more force to the patient.

11. Phosphorus medication is absolutely ineffective in multiple sclerosis.

12. It seems to give no result in lead poisoning.

13. The results seem favorable in poisoning by sulphide of carbon and by mercury.

14. In paralyses of the ocular muscles new experiments are required with phosphorus in order to draw conclusions as to its action.

15. In incomplete amaurosis, amblyopia not symptomatic of any organic lesion of the papilla, and only due to a functional disorder of innervation, the action of phosphorus is also very uncertain and new experiments are required.

16. In anaphrodisia it affords only uncertain results, sometimes long after the treatment.

17. Phosphorus appears therefore to be a stimulant, a tonic to the nervous system, capable of aiding but not of curing, certain nervous affections.

18. It may be prescribed in the above cited diseases, whenever inflammation and fever, and even all cerebral excitation is absent, when the acute stage is passed and all irritative phenomena have disappeared. This rule is absolute, since we risk an aggravation of the malady and even a fatal termination, by breaking it.

19. The administration of the remedy should commence with small doses (one milligramme, = .015 grs.), gradually increasing it to eight or ten milligrammes, given in two doses, at meal-times, since taken fasting it produces phosphoric eructations and the medication will be too irritating.

20. It is necessary to remember that it is a substance that accumulates in the system, and its effects are in proportion to the quantity; the treatment ought therefore to be suspended at the end of ten or eleven days and not repeated for several days more, and then commencing with one milligramme and the same precautions as at first.

21. If there is the slightest digestive disorder, such as gastralgia, vomiting, diarrhœa, the treatment should be at once suspended and only recommenced with great precautions, and it should not exceed a certain dose.

22. The best preparation seems to be the phosphorated oil, prepared by the method of M. Mehre.

23. If, at the end of a month, no favorable result is obtained the phospho medication ought to be abandoned, as its uselessness is then sufficiently demonstrated.—*Thesis de Paris*, 1875.—*Bull. Gen. de Therapeutique.*

Lycoctonia.—Dr. J. Ott publishes in the *Phila. Med. Times*, Oct 16, an account of his researches into the physiological action of this alkaloid, derived from a species of *aconitum* and allied to aconitia. He gives the

details of nine experiments performed on frogs and rabbits, in which its action on the cord and nerves and on the circulation was tested, and sums up his conclusions as follows :

1. Lycoctonia is a weaker toxicant than aconitia.
2. That it kills mainly through the respiratory apparatus.
3. That it paralyzes the motor nerves.
4. That it does not affect the sensory nerves, spinal cord or the striated muscles.
5. That it reduces the blood-pressure and pulse without any previous rise of the former, as produced by aconitia.
6. That the decreased pulse-rate and pressure are due to an action on the intracardiac nervous apparatus.
7. That the pneumogastrics are paralyzed only by large doses.
8. That the delirium cordis produced by small doses is due to a change in the mechanism of the nervous apparatus of the heart.

The Action of Digitoxin, Digitalin and Digitalein.—R. Koppe, *Arch. f. exper. Path.*, III., 274, (abstracted in *Centralblatt*, No. 44,) gives the results of experiments to test the therapeutic and physiological action of these extracts. They agree pretty well together in their qualitative action, and accord with the previously obtained data as to the action of digitalis and its preparations. Rana temporaria was found much more sensitive than R. esculenta ; 1-10 mgr. digitoxin and ¼-⅛ digitalin or digitalein sufficed to cause arrest of the heart in the first named species, while in the other 1-1½ mgrs. are necessary. In large doses digitoxin paralyzes the striped muscular fibre. In the experiments on mammals (dogs, cats and rabbits) the employment of digitoxin gave the most striking local phenomena. It being perfectly insoluble in water a solution in 50 per cent. alcohol was injected hypodermically. Even with the smallest dose it produced inflammation and suppuration at the point where injected. This was not the case with digitalin and digitalein, which are soluble in water. With the local irritation perhaps we ought to place the vomitting which takes place when digitoxin is administered by the mouth to dogs and cats, and which is the first indication of its effects. The diarrhœa which follows the larger doses is also to be mentioned here. Of the general effects, those on the circulation come first. After a hypodermic injection the pulse first increases in frequency and then decreases. Direct injection into a vein causes first an increase of blood-pressure with decreased pulse-rate, then decrease of pressure with increased pulse, which continues till death. This occurs suddenly with rapidly falling blood-pressure and slight convulsions. There is a striking weakness of the muscular system, the animals are inclined to fall, and finally fall into a kind of paralytic condition, which is especially noticeable in the non-vomiting rabbits. An action on the central organs cannot be proved. In the highest stage of the intoxication with the accompanying motor weakness, the animals still gave evidence of intact sensibility. With large doses dyspnœa soon supervened, apparently as a consequence of the disturbance of the circulation and the weakened muscular action. Cats seemed to be specially

sensitive to the action of digitoxiu: they succumbed to tbe dose of one mgm.; dogs were less sensitive to its effects, and rabbits least of all, the lethal dose for a rabbit weighiug one kilogramme being as much as three and a half milligrammes.

These results of experiments upon animals are supplemented by an observation made by the author on himself after having taken two milligrammes of digitoxin. First among the symptoms were paiuful vomiting and great weakness, confining bim to his bed. The pulse fell from seventy to forty strokes per minute and was pronouncedly interuittent, each two strokes beiug followed by a short pause. The second curve of these two strokes on the sphygmographic tracing was perceptibly smaller than tbe first. (This phenomenou has a great similarity to that described by Traube as tbe *pulsus trigeminus*, abstracted in *Centralbl.*, 1872, p. 505.) On tbe second day tbe pulse was still more irregular, and weakness of vision ensued, the outlines of objects seemed misty and persons were not recognized, and there was besides a moderate degrec of yellow vision. The pupils were uot dilated. The sensory faculties were all the time perfectly intact. Only after three or four days did the author regain his uormal condition.

As to the practical utilization of these different alkaloids, it may be said that the iusolubility in water of digitoxin and the powerful severe accessory symptoms it produces, especially the vomiting, are against its use. Digitalin and digitalein are better, but it is difficult to obtaiu them in anything like a pure condition. The digitalin preparations in the market are very variable as to the amount of their active constituents, and their employment is therefore to be rejected for the present.

Croton-Chloral.—At the meeting of the Berliner Med. Gesellsch., July 14, 1875, Dr. Leibreich made a communication on the action of croton-chloral, which is thus reported in the *Allg. Med. Central-Zeitung*, No. 82:

In an earlier communication, Herr L. had briefly reported on the action of this agent. His further researches and observations had, on the whole, confirmed his previous statements, especially that one that it possessed a different action from chloral-hydrate. This last agent, as one is obliged to admit from experiments on animals and the confirmatory observations on the human subject, causes, first, anæsthesia, then paralysis of the heart, and, in consequence of this, death, which cannot be avoided by artificial respiration. Croton-chloral has an altogether different action. If given to a rabbit, either hypodermically or by the stomach, we see, first, anæsthesia of the head, the bulbus oculi is perfectly insensible, while the binder extremities still react to reflex impulses; then follows a sleeplike condition without reflex action, and lastly retardation of the respiration and the pulse. After death, the right ventricle is found empty, the left full. That there is here no cardiac paralysis is evident from the fact that life may be preserved for a long time by artificial respiration, especially in summer, while in winter the cold is injurious. The course of the phenomena is also very different to those of chloral hydrate. The observations on the human species agree with those on animals. Herr L. gave croton-chloral to an unruly insane

person in the asylum of Herr Levinstein. After ten minutes, he sat quietly in a chair, his bulbus did not react though the muscles of his extremities still retained their tonus, the pulse and respiration were unaltered, and in an hour's time the action of the drug was over. In many other observations on men the effect was similar.

Herr Leibreich offered the theory that the action of croton-chloral depended upon the formation of dichlorallyl. For if we treat croton-chloral with alkalies, we obtain a chlorine-containing product insoluble in water, which, if inhaled, produces the same phenomena as croton-chloral.

The therapeutic use has in many cases confirmed the hypothesis deduced from experiment. Herr. L. has employed it with good results in many neuralgic conditions of the head, and mentioned particularly the case of a tobacconist in whom the supraorbital nerve had been divided on account of a facial neuralgia, but without result. The patient was so sensitive that he feared even to wipe his nose. After one dose of croton-chloral the pain ceased. In other cases similar results were obtained. The remedy, is, however, only a palliative one; the relief from pain is for only a short time. The stomach bears the remedy well. In England the experience of the remedy had also been favorable. On the other hand, Von Mering has lately published observations which were unfavorable to the efficacy of croton-chloral in that he only saw a kind of intoxication produced by it. Against this testimony we may object that Von Mering gave a mixture in which there was three times as much spiritus vini recti as of croton-chloral, and this amount of alcohol produced the opposite effect to the drug, a condition of increased excitement and exaltation. His cases, moreover, were all drinkers and women. Von Mering has made one theoretically very interesting observation in that he found in the urine, after the administration of chloral hydrate, as well as of croton-chloral, a chlorine-containing body with some other unrecognized substances, which he did not find after chloroform or dichlorallyl, and he has hence concluded that the theory of Leibreich must be incorrect. Herr L. did not believe that his theory could be thus overthrown. Chloral mixed with blood gives chloroform, and hence always as chloral, goes through the blood, a part at least must be changed into chloroform.

Finally, Herr L. mentioned experiments of Hermann and one of his students which contradict his opinions as to the action of trichloracetic acid. If we treat trichloracetic acid with soda alone, as was done in these experiments, chloride of sodium and formic acid will be produced. Actually pure trichloracetic acid in large doses is exhausting, not hypnotic in its action, since from it chloroform is always developed only very slowly and in small amount.

Bromide of Camphor.—The following summary of a recent thesis on this drug and its therapeutic usage by M. Pathault is taken from the *Gaz. des Hopitaux*, No. 111:

After having reviewed the experiments made on this drug in France and England, and after verifying and completing them on some points, the author reports a great number of observations, some collected in the various Paris hospitals, others published by different foreign authors.

We find first two cases of chorea. The first, communicated by Dr. Desnos, physician at La Pitie, was a young girl, eighteen years old. The bromide of camphor was given December 5, and the dose was successively increased from two dragees of ten centigrammes each to twelve (about 18 grains). On the eighteenth of December the patient left the hospital greatly improved.

The second case reported by M. Emery, *interne* to M. Gallard at La Pitie, was that of a man on whom chloral in large doses had been tried without success. Bromide of camphor was then administered. The patient took each day fifteen dragees (prepared by Dr Clin). Amelioration was rapidly produced, and he left the hospital cured.

M. Patbault next notices the benefits obtained from bromide of camphor in delirium tremens by Deneffe and O'Hara, and then he examines the results that this remedy has afforded in hysteria and hysteriform accidents. After mentioning the favorable opinions of Hammond, Lawson and Prof. Tommasi, he gives, at length, the French observations.

In the case of a patient in the service of M. Vulpian, subject to various hysterical phenomena, especially tremor and palpitations, bromide of camphor, from five to twenty dragees (about thirty grains), caused the disappearance of all the symptoms.

Dr. Mathieu has employed this remedy in a woman, aged thirty years, who had palpitations, flushes of reddening alternating with pallor of the face, difficult and disturbed sleep, an exaltation of the moral sensibility, erratic neuralgias, convulsive tremors and an incomplete anæsthesia of the left side. "Ordinary anti-spasmodics and narcotics having failed, I had recourse," says Dr. Mathieu, "to Dr. Clin's dragees of bromide of camphor. I commenced with only four dragees, which produced the first night a relative calm. The following nights the sleep became normal, the pulse, which had been one hundred and thirty-five, fell to eighty and eighty-five and became regular. These good results were due to the bromide of camphor, for I stopped all other medication, including the bromide of potassium."

A woman in the service of M. Potain at the hospital Neckar, ceased her attacks of hystero-epilepsy under the influence of eight to ten dragees given daily.

Another patient in the same service, a hysterical case, subject also to palpitations with increase of the thyroid body, experienced a notable sedation and less sleeplessness after having taken eight dragees of bromide of camphor every day for a considerable period. Among other phenomena, there was noticed a diminution of the pulse, which fell from ninety to sixty-eight.

The next paragraph is given to epilepsy. Of the ten observations it contains, nine have already been published by Dr. Bourneville. We will only condense the last one, which will suffice.

It is the case of a patient in the service of M. Charcot, aged thirty-eight years, and epileptic from her twenty-first year. She took successively from five to nine of Clin's capsules of bromide of camphor (from 15 to 24 grains); at the end of five months of the treatment the results were as follows: while in the five months of 1874, this woman had fifteen attacks and twenty-two vertigoes, in the five months of treatment (1875) she had only eleven attacks

and sixteen vertigoes. Is not this a considerable improvement when we consider the long standing of the disease ?

In this connection we may mention a case related to the Société Médicale de Reims, by Dr. Decès. * * *, thirty-eight years of age, had been an epileptic since he was fourteen. He tried first bromide of potassium, which in his case seemed to be of no avail. Bromide of camphor was administered, October 1st. From this time there was seen a notable improvement. Before the treatment he had an attack every eight or ten days ; from the 1st of October to the 2d of December, the date of the report, he had had only two attacks. He has been five weeks perfectly free, while before, since he was fourteen years old, he has had a seizure at least every fifteen days.

The details, otherwise very interesting, which we have given in regard to affections of the nervous system, oblige us to be brief in regard to the other disorders in which bromide of camphor has been advantageously prescribed.

M. Pathault reports two cases of dyspnœa, one in a young man twenty-three years of age, who was cured of his attacks by the drug ; the other, a patient of M. Potain, who was greatly helped.

The author next informs us that in a case of trigeminal neuralgia, M. Desnos has obtained good effects from the bromide of camphor.

The sedative properties of bromide of camphor furnish a logical indication for its employment in certain affections of the genito-urinary organs ; this has actually been done, and, we have to say, so far with very encouraging results : (1) A patient of M. Vulpian, suffering from nocturnal pollutions, has been considerably relieved by the use of Dr. Clin's drageés ; (2) a patient whose case was reported by Dr. Sindry, physician at the hospital Lariboisiere, subject to very painful attacks of vesical and anal tenesmus, with very frequent micturition, complicated also with a perituterine phlegmasia, was remarkably quieted by the capsules of Dr. Clin ; (3) a man forty-two years of age, whose history is reported by Dr. Desnos, felt for three months pains in the hypogastric region, irradiating toward the testicles. They were increased by walking and movement, and by the contact of the urine with the vesical mucous membrane. The very frequent though slight micturitions were dreaded by the patient, who could only accomplish them with very severe sufferings. These genito-urinary symptoms were, according to M. Desnos, to be attributed rather to a nervous disturbance than to a true vesical catarrh. From the 1st to the 17th of April, the patient followed the treatment by the bromide of camphor drageés. On this last date, urination was normal and the pains in the bladder seemed to have almost entirely disappeared. The patient still felt sometimes some lancinating pains, but these transient troubles were no comparison to the lasting misery experienced on his admission to the hospital.

M. Lannelongue, surgeon to the hospital Bicetre, who has carefully studied the action of bromide of camphor on the affections of the genito-urinary system, has thus laid down his opinion : In the inflammations of the neck, bromide of camphor rather quickly produces its action, (1) when the cystitis is painful and the pain depends on no organic alteration (neuralgic cystitis) ; (2) in cystitis of the neck of congestive origin, allied to a vascular alteration of the neck provoked under the influence of multiple causes; if

vesical catarrh is added to the cystitis the effects are nearly *nul;* (3) they are marked when the catarrh is slight, and also when a more or less acute prostatitis is added to cystitis of the neck ; (4) and finally, we may cite a case of priapism, lately described in the *Progrès Médical* in which bromide of camphor did good service.

The facts we have given, reported by French and foreign physicians, leave no doubt as to the therapeutic value of bromide of camphor. It is to be regretted in a pharmacological point of view that it cannot be administered in the form of syrup. Still we owe to Dr. Clin two preparations made with the greatest care : the capsules and the dragees. These are made of a very pure product and have had the merit of attracting the attention of very distinguished physicians. The quantity they each contain is most accurately regulated. The dragees each contain 10 centigrammes (=1.5 grains) ; the capsules enveloped in gluten and readily decomposing in the stomach, contain each 20 centigrammes (=3 grains); they are therefore preferable when a larger dose is required. This accurate dosage is a valuable quantity, since it enables the physician to modify his prescription according to circumstances.

Aconitia. — Dr. Franceschini has made in connection with M. Laborde a series of experiments on animals with the nitrate of aconitia. Besides the depressive action on the general and local circulation, these experimenters have especially insisted upon the modification of the sensibility produced by this alkaloid, and they have arrived at the following conclusions :

1. Aconitia exercises an incontestable action on the phenomena of sensibility.

2. This action reveals itself in the physiological state by an enfeeblement in various degrees, of the various kinds of sensibility which may, according to the dose, reach the point of the complete extinction of the sensitive functions of the nerves.

3. The first appreciable modifications of the sensibility under the influence of aconitine in hypodermic injection, seem to coincide with the first manifestation of the general symptoms.

4. In physiological doses, and even the very feeble ones of one, one-half, and one-fourth milligramme, the phenomena on the side of sensibility are already very manifest.

M. Franceschini has observed in the service of M. Gubler a number of cases of neuralgia which were treated with nitrate of aconitia. This salt, discovered by Duquesnel in 1871, was administered in granules containing each one-half a milligramme of the nitrate. For hypodermic injection the following solution was employed :

℞—Nitrate of aconitia 0 gr. 10.
Distilled water, 100 cc.
Dissolve and filter with care.

From one-half to one milligramme may be administered of this nitrate of aconitia.

According to the facts observed this drug succeeds best in the congestive form of neuralgias (*Thesis de Paris* 1875, No. 369).—*Bull. Gen. de Therap.*, Oct. 15.

Alcohol in Therapeutics.—The *Bulletin Generale de Therapeutique* for Oct. 15, 1875, gives an abstract of a discussion on this subject which took place at the General Medical Congress at Brussels during the past year.

The subject was opened by a paper read by Dr. Desguin, of Antwerp, of which the following are the general conclusions:

"Two phases should be distinguished in the physiological action of alcohol and alcoholic drinks. The first is characterized by excitation of all parts of the nervous system, ganglionary as well as cerebro-spinal; the second, by the depression of all the acts of organic and animal life. These two modes of action are not contradictory; physiology demonstrates that the second is only the consequence of the first; alcohol is therefore primitively and essentially a general excitant.

"In the first period of its administration, alcohol arouses the organic functions and augments combustion; later, when given in large or frequently repeated doses, it paralyzes the functions, diminishes the combustions, and thus becomes an anti-denutritive, a conservative aliment, etc. It acquires these properties only when it has made it impossible for the organism to produce the phenomena of change of material; it therefore allows those substances to accumulate in the system which have become unfit for nutrition and ought to be expelled.

"In proper therapeutics this last mode of action should be absolutely rejected; it is only the result of an alcoholic intoxication produced for a therapeutic purpose, which we may call therapeutic alcoholism.

"The excitant action of alcohol is the only action to which we can and ought to have recourse in treatment; it finds numerous applications in medicine, in cases where there is a profound depression of the nervous system; it is specially applicable to the different conditions in which we have to combat, instantly and energetically, asthenia, the waste of forces threatening the life of the patient, such as certain typhoid fevers, certain malignant pneumonias, especially those that attack drinkers and old persons, some cases of hæmorrhage, etc.

"Alcohol is counter-indicated in simple febrile diseases, since if it causes a decrease of the pulse and temperature, and if it also diminishes the excretion of urea, these results are due to embarrassment of functions; they mask the organic lesion, they may prevent the natural evolution, and hinder the resolution of the exudations. In a word, they put the organism in an unnatural state, which renders the cure of inflammatory affections longer and more difficult."

In the discussion which followed the reading, the conclusions of the paper were supported by MM. Crocq and Mahaux, who found digitalis, quinine, and antimony more safe and efficacious in combating high temperatures in inflammatory disorders than alcohol. Dr. Achmet Bey, of Constantinople, also supported the views of M. Desguin in the main, but stated that he had found large doses of alcohol extremely useful in some cases of

severe hæmorrhage, a fact that had been unnoticed by the author of the memoir.

The views of M. Desguin were combated especially by Drs. Semmola and Dujardin-Beaumetz of Paris. The former, speaking of the necessity of combating the troubles produced by very high temperatures, especially in such diseases as pneumonia, claimed that no agent for this purpose offered less of danger than alcohol. Sulphate of quinine, according to Dr. S., gives scarcely appreciable results; digitalis, though much more active, caused serious cardiac complications; the same is the case with veratria and colchicum.

M. Dujardin-Beaumetz agreed entirely with Dr. Semmola, and quoted the experiments of Anstie and Duprè and Franz Riegel, which demonstrate the *rôle* of alcohol in lowering the temperature and diminishing the excretion of urea, and the clinical observations of Behier as to its value in adynamic inflammations, and to combat extreme elevations of temperature. He concluded that in whatever group we place alcohol, whether as an excitant or a depressant, it is none the less true that, in certain limits and under certain conditions, its administration is of immense service, and the introduction of the alcoholic medication into therapeutics is an incontestable progress.

Lobelina.—Dr. J. Ott, *Phil. Med. Times*, Dec. 11, publishes further investigations in regard to the physiological action of this extract. (See this journal for April, 1875.) The following are his conclusions:

1. Lobelina, like nicotina and conia, paralyzes the motor nerves.

2. Lobelina does not destroy the functions of the sensory nerves or the striated muscles.

3. Lobelina, nicotina, and conia depress the excitability of the spinal cord.

4. Lobelina destroys voluntary movement and co-ordinating power.

5. It temporarily decreases the pulse followed by a subsequent increase, often beyond normal. Nicotina does the same. Lautenbach states that conia increases the heart-beat.

6. This action on the pulse is due to an action on the cardio-motor ganglia, provided that atropia paralyzes the cardio-inhibitory ganglia.

7. Lobelina, nicotina and conia temporarily decrease the pressure, followed by a rise much beyond normal.

8. This increase of pressure is due either to a peripheral vaso-motor action, or to an excitation of the spinal vaso-motor centres.

9. Lobelina, nicotina and conia paralyze the pneumogastrics.

10. In large doses it paralyzes the vaso-motor centre, both to direct and to indirect irritation.

11. Lobelina, nicotina, and conia accelerate the respiratory movements.

12. After section of the vagi, lobelina and conia cause no increase of respiratory movements.

13. It increases and then decreases the temperature; nicotina and conia decrease the temperature.

The following are the titles of some recent papers in this department :

GREENE, Jaborandi, *Phil. Med. Times*, Oct. 30 ; SMART, The Relations of Nitrite of Amyl to Chloroform, *Detroit Review of Med. & Pharmacy*, November ; ANDERSON, On the Treatment of Spasmodic Asthma by the Subcutaneous Injection of Morphia, *Practitioner*, November, 1875 ; HAYNES, The Domestic Treatment of Insanity, *Ibid ;* RITTI, Forced Alimentation of the Insane ; Use of Electricity, *Ann. Med. Psychologiques*, November, 1875 ; MOSSO, On the Action of Tartar Emetic, *Lo Sperimentale*, December, 1875 ; CURCI, The Action of Silver on the Nervous and Muscular Systems, *Ibid ;* WOOD, Clinical Lecture on the Treatment of Opium Poisoning, *Phil. Med. Times*, December 25 ; KOHLER, Action of Cumarin, *Centralblatt f. d. med. Wissensch.*, No. 51, 1875 ; RIEGEL, On Jaborandi, *Berliner klin. Wochenschr.*, Nov. 15 ; FILEHUE, On the Action of Nitrite of Amyl ; SWARZ, On the Use of Electrotherapy in the Treatment of Cerebral Paralyses, *Deutsch. med. Wochenschr.*, No. 8, November 13. 1875 ; BERGER, Physiological and Therapeutic Valuation of Gelsemium Sempervirens, *Centralbl. f. d. med. Wissensch.*, No. 43, 1875.